

THERMOSTAT AND METHOD FOR ADAPTIVELY PROVIDING A  
CHANGEOVER BETWEEN HEAT AND COOL

ABSTRACT

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A thermostat (800) operates continuously in a current mode (304) that is one of a heating mode and a cooling mode, and completes (520, 610) a demand for one of heating and cooling in accordance with the current mode. After completing the demand and until another demand occurs for one of heating and cooling, the thermostat repeatedly makes (302) measurements of a sensed room temperature, and determines (310, 414), from the measurements, whether the sensed room temperature has finished a post-demand overshoot. In response to determining that the sensed room temperature has finished the post-demand overshoot, the thermostat records (316, 418) an evaluation temperature, and  
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15 decides whether to make an automatic changeover from the current mode to a new mode by periodically comparing (318, 420) the sensed room temperature with the evaluation temperature.